CLAIMS:

1. A transmitter of a tire condition monitoring apparatus, wherein the transmitter is located in a tire of a vehicle and transmits data indicating a tire condition using a carrier wave, the transmitter comprising:

an oscillator circuit, which generates the carrier wave; and

a compensation device for compensating a deviation of the amplitude of the carrier wave generated by the oscillator circuit relative to a predetermined reference value such that the amplitude of the carrier becomes equal to the reference value.

2. The transmitter according to claim 1 further comprising an amplifier for amplifying the carrier wave, wherein the amplitude of the carrier wave changes in accordance with a current applied to the amplifier, and wherein the compensation device adjusts a value of the current applied to the amplifier.

3. The transmitter according to claim 2, wherein the amplifier is a transistor, and wherein the compensation device adjusts an emitter current of the transistor.

4. The transmitter according to claim 2, wherein the compensation device gradually changes the value of the current applied to the amplifier until the amplitude of the carrier wave becomes equal to the reference value.

5. The transmitter according to claim 4, wherein, when transmission of the transmitter is started, the compensation device first sets up the value of the current applied to the amplifier to a predetermined initial value, and the

compensation device gradually increases the value of the current applied to the amplifier until the amplitude of the carrier wave reaches the reference value.

6. The transmitter according to claim 1, wherein the compensation device compensates the amplitude of the carrier wave in accordance with a temperature inside the tire.

7. A tire condition monitoring apparatus comprising the transmitter according to claim 1, and a receiver for receiving the data indicating the tire condition transmitted by the transmitter.

8. A transmitter of a tire condition monitoring apparatus, wherein the transmitter is located in a tire of a vehicle and transmits data indicating a tire condition using a carrier wave, the transmitter comprising:

a tire condition sensor for measuring data representing the condition of the tire;

an oscillator circuit, which generates the carrier wave, wherein the oscillator circuit includes an amplifier for amplifying the generated carrier wave, and wherein the amplitude of the carrier wave changes in accordance with a current applied to the amplifier;

a controller for adjusting the current applied to the amplifier such that the amplitude of the carrier becomes equal to the reference value; and

a transmission circuit for sending the data indicating the condition of the tire by the carrier wave adjusted to a reference value.

9. The transmitter according to claim 8, wherein the amplifier is a transistor, and wherein the controller adjusts an emitter current of the transistor.

10. The transmitter according to claim 8, wherein, when transmission of the transmitter is started, the controller first sets up the value of the current applied to the amplifier to a predetermined initial value, and the controller gradually increases the value of the current applied to the amplifier until the amplitude of the carrier wave reaches the reference value.

11. The transmitter according to claim 8, wherein the compensation device compensates the amplitude of the carrier wave in accordance with a temperature inside the tire.

12. A method for adjusting an amplitude of a carrier wave that is used by a transmitter of a tire monitoring apparatus, the method including:

detecting data representing a tire condition;

generating a carrier wave;

amplifying the generated carrier wave with an amplifier, wherein the amplitude of the carrier wave changes in accordance with a current applied to the amplifier;

adjusting the value of the current applied to the amplifier such that the amplitude of the carrier wave becomes equal to a predetermined reference value; and

transmitting the data representing the tire condition with the carrier wave adjusted to the reference value.